

# **Appendix J**

## **M-CACES**

Thu 11 Aug 2005  
Eff. Date 08/10/05

U.S. Army Corps of Engineers  
PROJECT TTA10E: GRR/SEIS Tamiami Trail 2 Bridge - 2 BRIDGE ALT.  
Budget Estimate for 2 Bridges & Roadway

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TITLE PAGE

GRR/SEIS Tamiami Trail 2 Bridge  
2 BRIDGE ALT.

Designed By: PBS&J  
Estimated By: PBS&J

Prepared By: P. Ommi  
REVISED: JERRELL PENNINGTON

Preparation Date: 08/10/05  
Effective Date of Pricing: 08/10/05  
Est Construction Time: 730 Days

Sales Tax: 7.00%

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Currency in DOLLARS

Thu 11 Aug 2005  
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PROJECT NOTES

U.S. Army Corps of Engineers  
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The basis of this is the pre-final cost estimate for a 4-mile bridge provided by PBS&J under contract number xxxxx dated 22 July 2005.

Revisions to the PBS&J design to develop were made by USACE in order to develop this cost estimate as follows:

- Roadway quantities for this estimate were prorated from PBS&J pre-final submittal based on the typical sections and calculations presented in that report.
- Bridge quantities for this estimate were prorated from the PBS&J pre-final submittal based on the typical sections and calculations presented in that report.
- No Changes were made to the pricing presented by PBS&J. Pricing in the pre-final submittal is based on FDOT unit pricing. These unit prices were adjusted by PBS&J to account for local market conditions and recent increases & volatility in construction material prices such as cement, steel, asphalt, and fuel. In addition, these unit prices were independently verified by USACE to ensure accuracy by developing independent labor, equipment, and material estimates. Given the nature of this project and its similarity to other FDOT work, the use of FDOT unit pricing is considered reasonable and prudent for this estimate.

Basis, assumptions and exclusions

All cost in the this estimate is based 2005 Dollars.

Project Narrative:

As stated on the Engineering Appendix this cost estimate is prepared for 2 Bridges. This alternative includes an elevated bridge with cross section shown in plate AX-5. The cross section of the Bridge as shown on plate AX-5 is 47'-1" from outside to outside of barrier and is 2 miles and 1 mile long .

Other main features of the project include milling of existing friction course, overbuild of the existing roadway and new 3/4" friction course for approximately 31,338 lf of corridor as shown on plate AX-1. It is also expected that guardrails and some roadway signs be replaced for this alternative since the profile of the road is being raised.

(1) Quantity computations

A) Roadway items were prorated to the 4 Mile Bridge calculated based on typical section plates .

B) Bridge items were prorated to the calculated prepared by PBS&J structural division.

(2) Cost Estimate for the engineering appendix is of Feasibility Phase Type.  
It is assumed that if the project is developed to a Engineering and Design

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Phase that a more detailed estimate would be prepared reflecting the level of detail of the design.

- (3) The estimate contains items not detailed in the Plates of the Engineer Appendix Report such as provisions for erosion control, and replacement of roadway signs, which are determined necessary based on construction experience. Estimates and quantities for maintenance of traffic are based on the construction phasing plates included in the Engineer Appendix Report.

Cost estimates were prepared using FDOT Unit Pricing

- (4) The format of the estimate follows DOT as per the Standard Specifications for Road and Bridge Construction 2004 sequencing required by the Scope of Work.

No Bid Schedule has been prepared since it is not required for Feasibility Phase Report estimate.

- (5) This estimate is "FOR OFFICIAL USE ONLY"

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\*\* PROJECT OWNER SUMMARY - Scope \*\*

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SUMMARY PAGE

	QUANTITY UOM	CONTRACT	CONTINGN	TOTAL COST	UNIT COST
2B Roadway & 2 Bridges					
2B-10 Roadway		38,943,897	9,735,974	48,679,871	
2B-20 Bridge (1 Mile)		16,403,208	4,100,802	20,504,010	
2B-21 Bridge (2 mile)		32,826,893	8,206,723	41,033,616	
2B-30 Drainage System (1 Mile)		1,858,501	464,625	2,323,126	
2B-31 Drainage System (2 Mile)		3,717,367	929,342	4,646,708	
2B-40 Utilities Relocation Coordtn		39,775	9,944	49,719	
2B-50 Disposal Fees (1 Mile)		109,643	27,411	137,054	
2B-51 Disposal Fees (2 Mile)		219,286	54,822	274,108	
2B-60 Disposal old Road Bed (1 Mile)		1,988,634	497,159	2,485,793	
2B-61 Disposal old Road Bed (2 Mile)		3,977,271	994,318	4,971,588	
-----					
TOTAL Roadway & 2 Bridges		00,084,475	25,021,119	125,105,593	
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TOTAL GRR/SEIS Tamiami Trail 2 Bridge		00,084,475	25,021,119	125,105,593	

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PROJECT TTA10E: GRR/SEIS Tamiami Trail 2 Bridge - 2 BRIDGE ALT.  
Budget Estimate for 2 Bridges & Roadway  
\*\* PROJECT OWNER SUMMARY - Bid Item \*\*

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	QUANTITY	UOM	CONTRACT	CONTINGEN	TOTAL COST	UNIT COST
2B Roadway & 2 Bridges						
2B-10 Roadway						
2B-10-101 Mobilization (Roadway & Bridge)	3,115,197		778,799	3,893,996		
2B-10-102 MOT Roadway and Bridge	4,999,721		1,249,930	6,249,652		
2B-10-104 Prevention, Control, Erosion	266,362		66,590	332,952		
2B-10-110 Clearing and Grubbing	217,906		54,476	272,382		
2B-10-120 Embankment	2,380,614		595,153	2,975,767		
2B-10-160 Stabilizing	39,165		9,791	48,956		
2B-10-200 Limerock Base	480,483		120,121	600,604		
2B-10-300 Prime and Tack Coats for Base	188,832		47,208	236,041		
2B-10-327 Milling Existing Asphalt Pavt	416,595		104,149	520,744		
2B-10-331 Asphaltic Concrete	13,693,157		3,423,289	17,116,446		
2B-10-337 Asphaltic Concrete Friction Cour	840,104		210,026	1,050,130		
2B-10-430 Existing Culvert Extensions	309,888		77,472	387,360		
2B-10-521 Retaining Wall	6,482,228		1,620,557	8,102,785		
2B-10-536 Guardrail	2,934,879		733,720	3,668,598		
2B-10-540 Temp. Sheet Pile	1,569,067		392,267	1,961,334		
2B-10-575 Seeding and Sodding	631,861		157,965	789,826		
2B-10-700 Highway Signing	35,086		8,771	43,857		
2B-10-706 Reflective Pavement Markers	58,305		14,576	72,882		
2B-10-711 Thermoplastic Traffic Stripes	284,448		71,112	355,560		
TOTAL Roadway	38,943,897		9,735,974	48,679,871		
2B-20 Bridge (1 Mile)						
2B-20-350 Substructure	2,631,409		657,852	3,289,261		
2B-20-360 Superstructure	13,616,622		3,404,155	17,020,777		
2B-20-370 Bridge approaches	155,177		38,794	193,972		
TOTAL Bridge (1 Mile)	16,403,208		4,100,802	20,504,010		
2B-21 Bridge (2 mile)						
2B-21-350 Substructure	5,438,466		1,359,616	6,798,082		
2B-21-360 Superstructure	27,233,250		6,808,312	34,041,562		
2B-21-370 Bridge approaches	155,177		38,794	193,972		
TOTAL Bridge (2 mile)	32,826,893		8,206,723	41,033,616		
2B-30 Drainage System (1 Mile)						
2B-30- 01 Piping and Fittings	1,660,067		415,017	2,075,084		
2B-30- 02 Drainage Structures	198,433		49,608	248,042		

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\*\* PROJECT OWNER SUMMARY - Bid Item \*\*

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SUMMARY PAGE

QUANTITY UOM	CONTRACT	CONTINGN	TOTAL COST	UNIT COST	
TOTAL Drainage System (1 Mile)			2,323,126		
2B-31 Drainage System (2 Mile)					
2B-31- 01 Piping and Fittings	3,320,482	830,120	4,150,602		
2B-31- 02 Drainage Structures	396,885	99,221	496,107		
TOTAL Drainage System (2 Mile)			3,717,367	929,342	4,646,708
2B-40 Utilities Relocation Coordtn					
2B-40- 01 Utilities Relocation Coordtn	39,775	9,944	49,719		
TOTAL Utilities Relocation Coordtn			39,775	9,944	49,719
2B-50 Disposal Fees (1 Mile)					
2B-50- 10 Disposal Fees	109,643	27,411	137,054		
TOTAL Disposal Fees (1 Mile)			109,643	27,411	137,054
2B-51 Disposal Fees (2 Mile)					
2B-51- 10 Disposal Fees	219,286	54,822	274,108		
TOTAL Disposal Fees (2 Mile)			219,286	54,822	274,108
2B-60 Disposal old Road Bed (1 Mile)					
2B-60-110 Clearing and Grubbing	70,317	17,579	87,896		
2B-60-120 Excavation and Disposal	1,918,317	479,579	2,397,896		
TOTAL Disposal old Road Bed (1 Mile)			1,988,634	497,159	2,485,793
2B-61 Disposal old Road Bed (2 Mile)					
2B-61-110 Clearing and Grubbing	140,637	35,159	175,796		
2B-61-120 Excavation and Disposal	3,836,634	959,158	4,795,792		
TOTAL Disposal old Road Bed (2 Mile)			3,977,271	994,318	4,971,588
TOTAL Roadway & 2 Bridges			100,084,475	25,021,119	125,105,593
TOTAL GRR/SEIS Tamiami Trail 2 Bridge			100,084,475	25,021,119	125,105,593

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ERROR REPORT

U.S. Army Corps of Engineers  
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R2029: GRR/SEIS Tamiami Trail 2 No Crew Database selected - No Crew Summaries or Reprice

\* \* \* END OF ERROR REPORT \* \* \*



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SUMMARY PAGE

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No Detailed Estimate.

No Backup Reports.

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